Amendments to the Specification:

Please amend the paragraph beginning on page 2 after Table 1 as follows:

Assuming that prior to stage 0 data points 0 − 7 reside in a first memory space X and data points 8 − 15 ~~16~~ reside in a second memory space Y, each of the data point groupings in stage 0 will require only one memory read cycle to be fetched from memory, as each data point in each grouping resides in a separate memory space (e.g., data points 0 and 8 in data point grouping 0,8 reside in separate memory spaces X and Y). However, should the results of stage 0 be written in-place such that the results of an FFT calculation upon a data point are written to the location in the memory space from which the data point was fetched, each of the data point groupings in stages 1 − 3 will require two memory read cycles to be fetched from memory, as each data point in each grouping resides in the same memory space (e.g., both of data points 0 and 4 in data point grouping 0,4 in stage 1 reside ~~resides~~ in memory space X).

Please amend the abstract as follows:

A method for in-place memory management in a Digital Signal Processing (DSP) architecture performing a Fast Fourier Transformation (FFT) upon a sequence of *N* data points, the sequence numbered from *0* to *N-1*, ~~the method including~~ includes storing ~~each of~~ the data points numbered from *0* to *(N/2)-1* in a first memory space X and ~~each of~~ the data points numbered *N/2* to *N-1* in a second memory space Y~~., for each FFT stage 0~~ Each data point grouping for a first stage of the FFT ~~comprising~~ includes a first data point ~~of the data points~~ in the first memory space X and a corresponding second data point ~~of the data points~~ in the second memory space Y~~. determining the parity of a data point memory index corresponding to the first and second data points, storing, if the parity is of a first parity value, the~~ The results of an FFT operation upon the ~~first~~ data point grouping ~~at the memory address~~ are stored in the first memory space X ~~from which the first data point was fetched and the result of an FFT operation upon the second data point at the memory address~~ and ~~in~~ the second memory space Y according to the parity of a data point memory index corresponding to the first and second data points. ~~from which the second data point was fetched, and storing, if the parity is of a second parity value, the results of an FFT operation upon the first data point at the memory address in the second memory space Y from which the second data point was fetched and the result of an FFT operation upon the second data point at the memory address in the first memory space X from which the first data point was fetched.~~